ABSTRACT OF THE DISCLOSURE

Electric-component mounting system for mounting an electric component on a substrate, including a movable portion movable relative to a main body, a motion-transmitting member disposed on the main body and operable to transmit to the movable portion a linear motion generated by a drive device, such that thermal expansion of the motion-transmitting member causes a positioning error of the movable portion, an object fixedly disposed on one of the main body and the movable portion, an image-taking device fixedly disposed on the other of the main body and the movable portion to take an image of the object, the object and the image-taking device being positioned relative to such an error of relative positioning each other that therebetween detected on the basis of the image of the object substantially represents a positioning error of the object due to thermal expansion of the system, and a controller operable to determine a drive signal to operate drive device, on the basis of the image of the object, so as to reduce an amount of influence of the positioning error of the object on the actual position of the movable portion.